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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of) Art Unit: 2813
Hisashi OHTANI et al.) Examiner: L. Schillinger
Serial No. 09/226,216)
Filed: January 7, 1999)
For: SEMICONDUCTOR DEVICE AND)
METHOD OF MANUFACTURING)
THE SAME)

CERTIFICATE OF MAILING

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Class Mail in an envelope addressed to: Commissioner for Patents,
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Response
J. M. Cunillar
11/9/02

RESPONSE

Honorable Commissioner of Patents
Washington, D.C. 20231

Sir:

The Final Official Action dated July 29, 2002 has been received and its contents carefully noted. Filed concurrently herewith is a *Request for a One Month Extension of Time* which extends the shortened statutory period for response to November 29, 2002. Accordingly, the Applicants respectfully submit that this response is being timely filed.

Applicants note with appreciation the consideration of the Information Disclosure Statements filed on June 9, 2000 and May 2, 2002. However, Applicant has not received acknowledgment of the Information Disclosure Statement filed on March 2, 1999. Applicant respectfully requests that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of these Information Disclosure Statements.

Claims 5-9, 16-18, 20-22, 24-38 and 40-44 are pending in the present application, of which claims 5, 7, 16, 20 and 40-44 are independent. For the reasons set forth in detail below, the claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 5-9, 16-18, 20-22, 24-38 and 40-44 as anticipated by U.S. Patent No. 5,923,997 to Mitanaga et al. The Applicants respectfully traverse the rejection. Mitanaga does not teach or suggest all the elements

of the independent claims, either explicitly or inherently.

The Official Action asserts that Mitanaga teaches a method comprising "removing the promoting material for crystallization from a surface of the semiconductor film after the heat treatment (Col. 17, lines: 30-60) ... wherein the promoting material comprises one or more elements selected from the group consisting of group 14 elements (Col. 3, lines: 40-50)" (p. 2, Paper No. 24). The Applicants respectfully disagree.

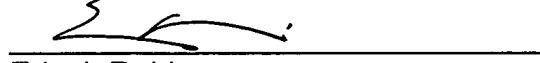
Mitanaga teaches forming a thin film of indium (group III) "which is a catalytic metal for crystallization in an exposed region 100" (col. 16, lines 65-66); forming an amorphous silicon film 104; injecting silicon (group iV) ions into the entire upper surface of the amorphous silicon film 104" (col. 17, lines 3-4); and crystallizing the amorphous silicon film 104 by heating (col. 17, lines 17-18). In Mitanaga, the promoting material is a thin film of indium (group III). Also, there is no teaching or suggestion in Mitanaga for removal of indium from a surface of the semiconductor film after the heat treatment.

Mitanaga also discloses that "a crystal component ... which becomes a nucleus of the crystal growth mostly existing on the interface between the substrate and the amorphous silicon film is removed by injecting the silicon ions as described above" (col. 17, lines 22-27). The crystal component of Mitanaga is not a crystallization promoting material. Furthermore, there is no discussion or suggestion of removal of the silicon ions from a surface of the semiconductor film after the heat treatment. Since Mitanaga does not teach or suggest all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained.

For the reasons stated above, the Official Action has not formed a proper anticipation rejection. Accordingly, reconsideration and withdrawal of the rejection of independent claims 5, 7, 16, 20 and 40-44 under 35 U.S.C. § 102(e) is in order and respectfully requested. Likewise, it is believed that dependent claims 6, 8, 9, 17, 18, 21, 22 and 24-38 are allowable in that they depend from what is believed to be allowable base claims 5, 7, 16, 20.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,


Eric J. Robinson
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Total Number of Pages in This Submission	Attorney Docket Number	0756-1921
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Remarks <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 50-2280 for the above identified docket number.		

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Eric J. Robinson, Reg. No. 38,285 Robinson Intellectual Property Law Office, P.C. PMB 955 21010 Southbank Street Potomac Falls, VA 20165
Signature	
Date	November 29, 2002

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